

3. Block diagram

This is the block diagram concerning to the receiver.

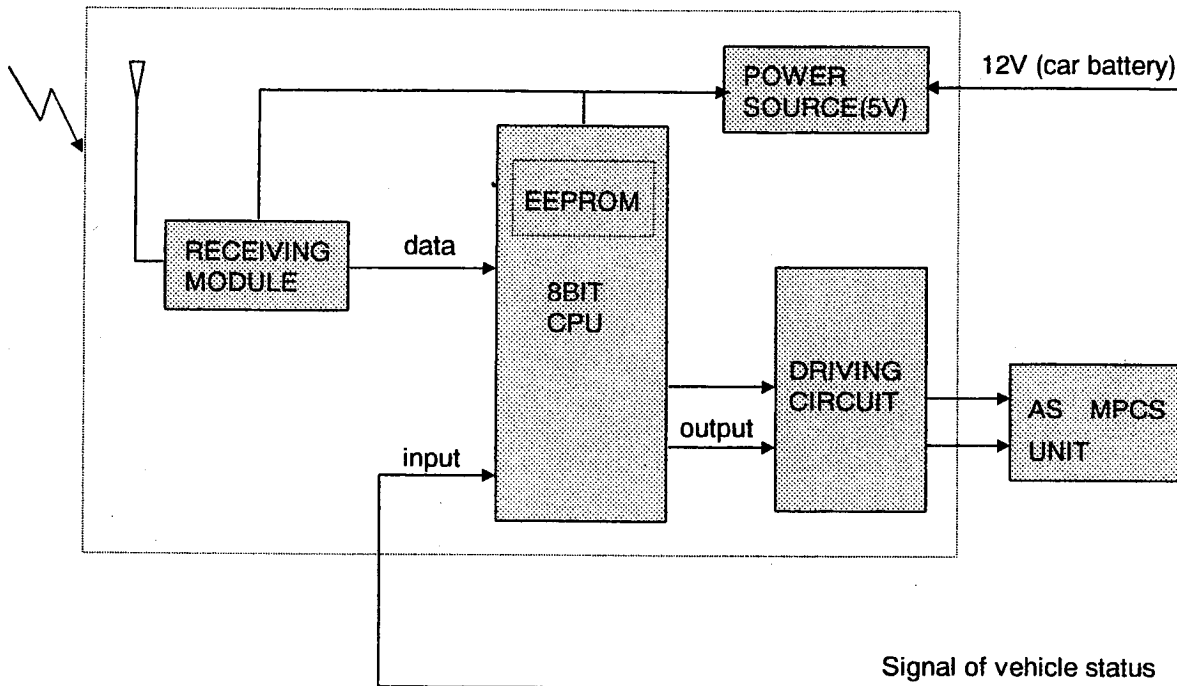


Figure 3.1 block diagram of the receiver

6. PCB

6.1 Circuit diagram

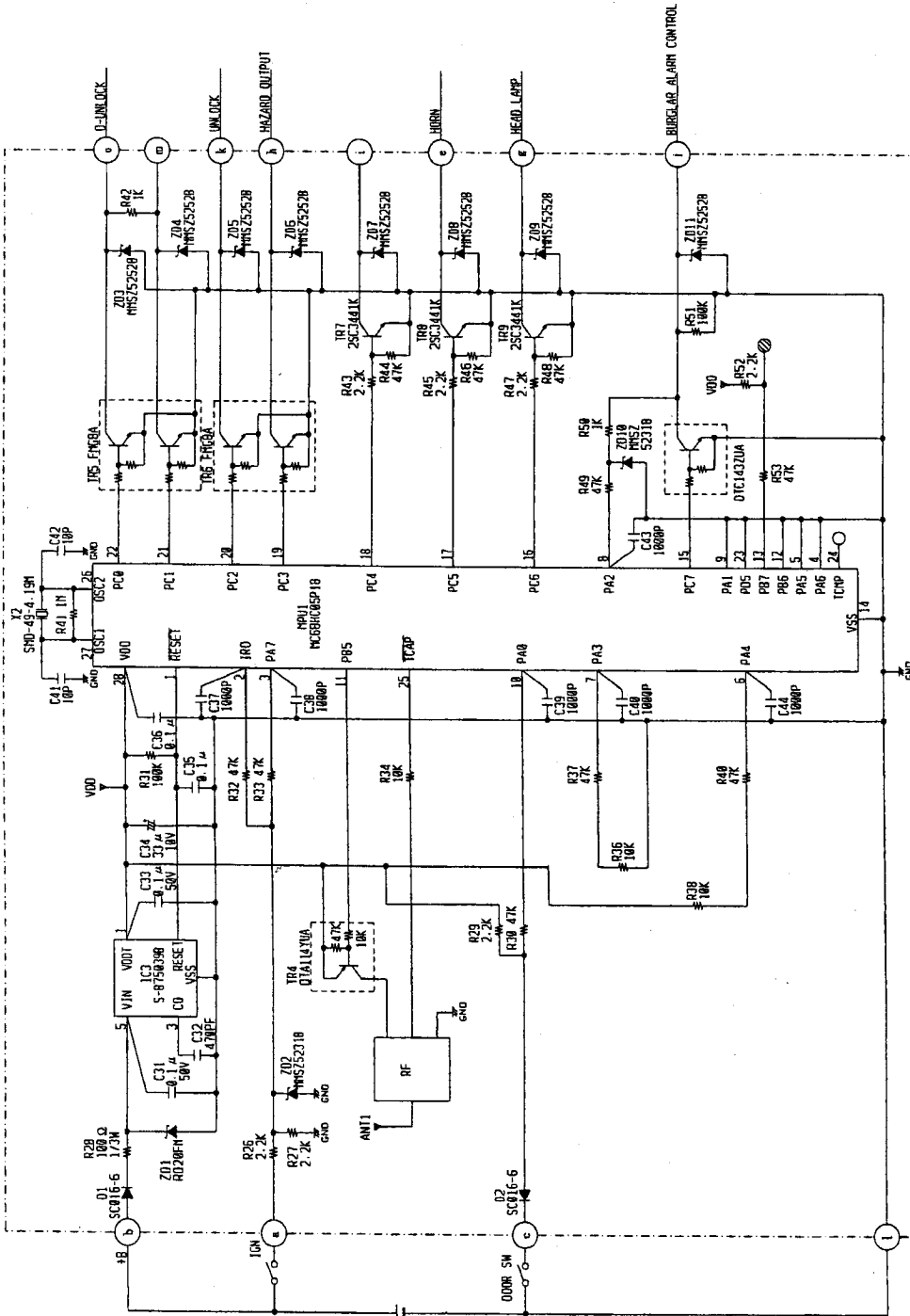
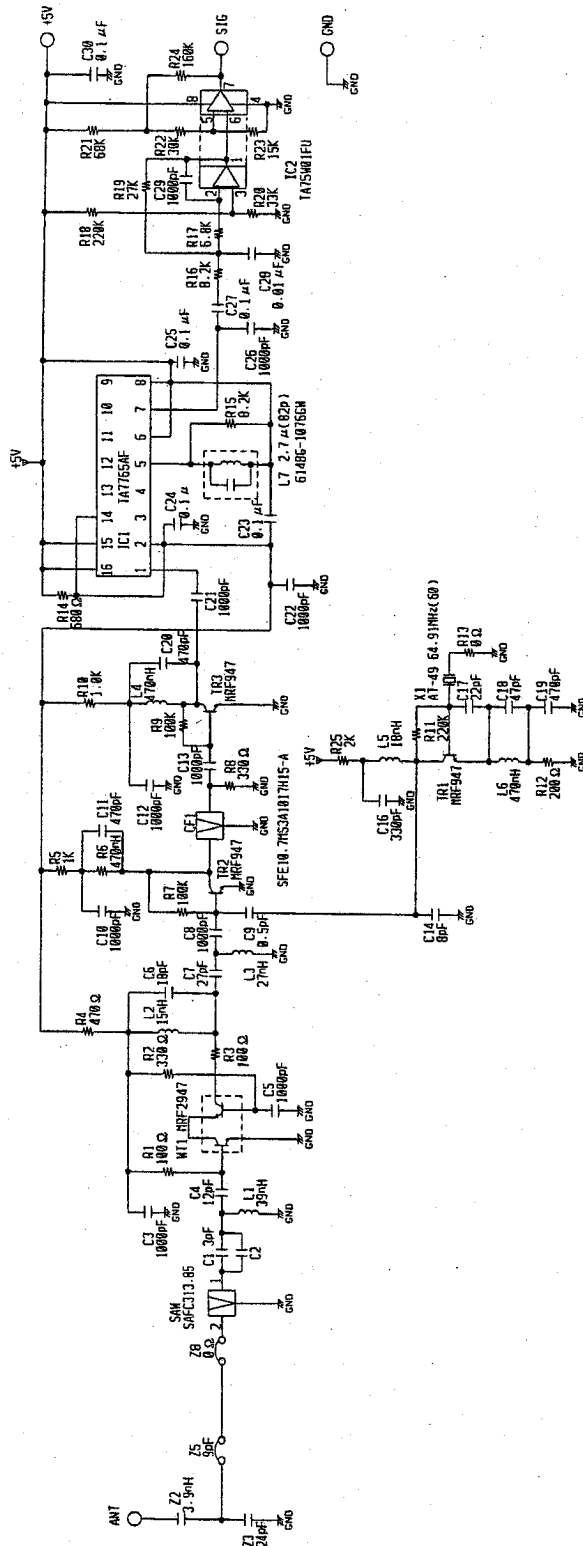


Figure 6.1 Circuit diagrams



6.2 Parts layout

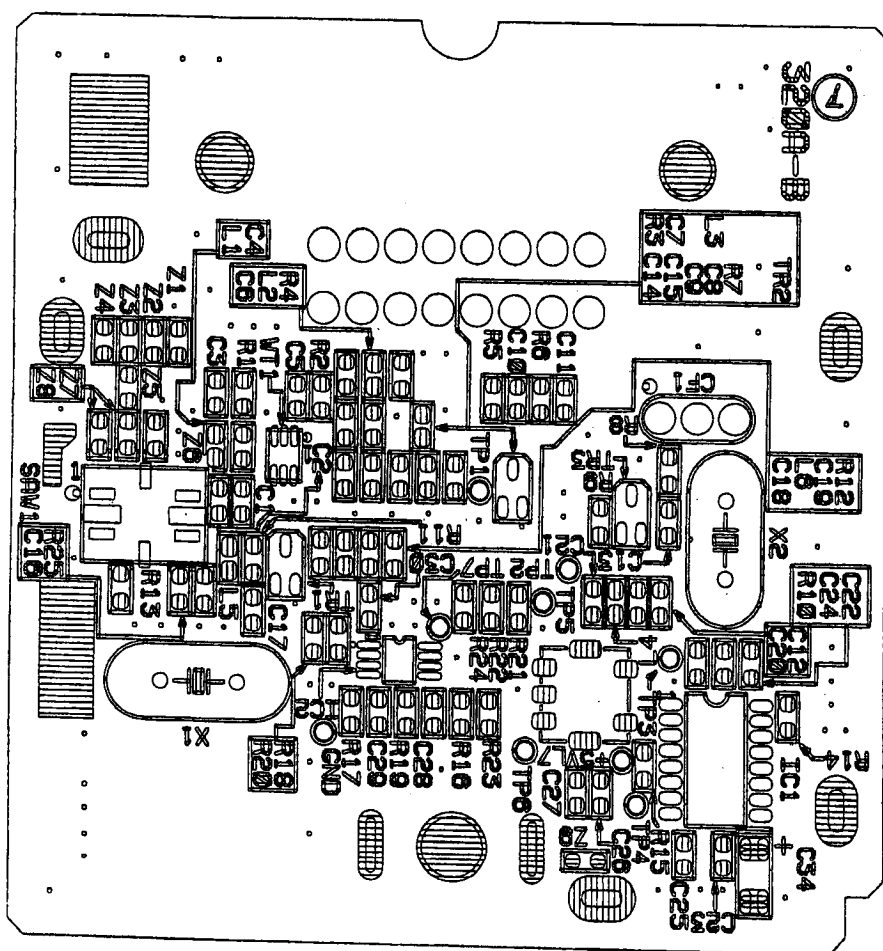


Figure 6.3 Parts layout (front)

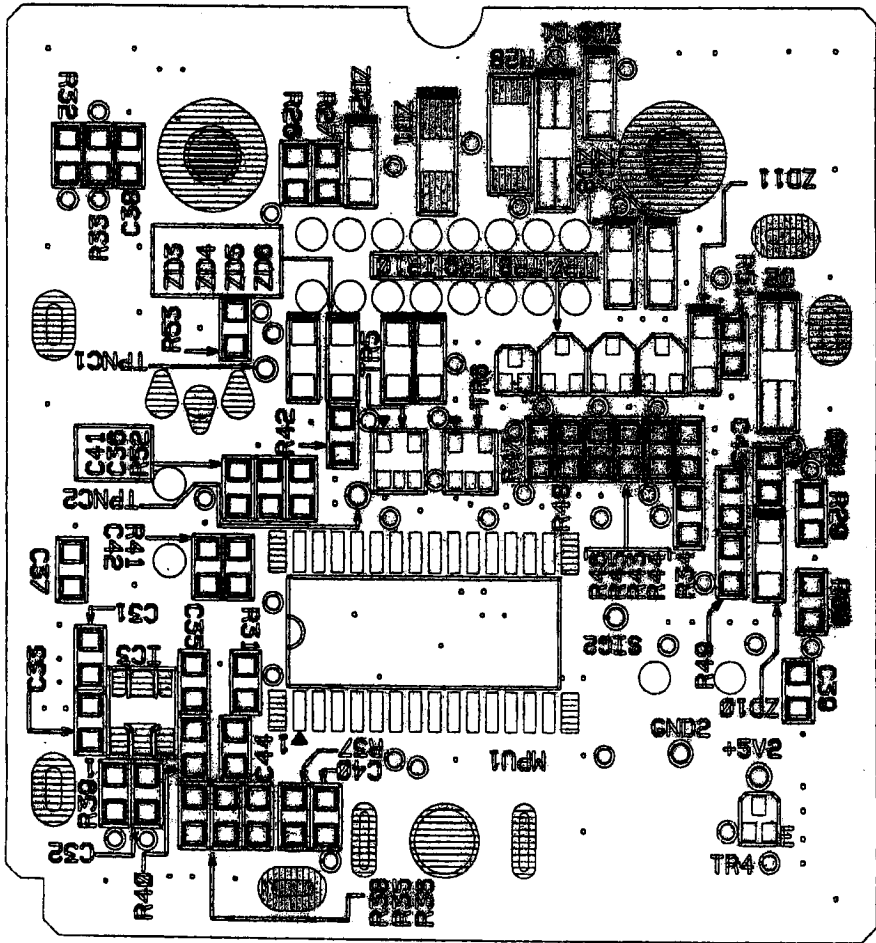


Figure 6.4 Parts layout (back)

6.3 pattern layout

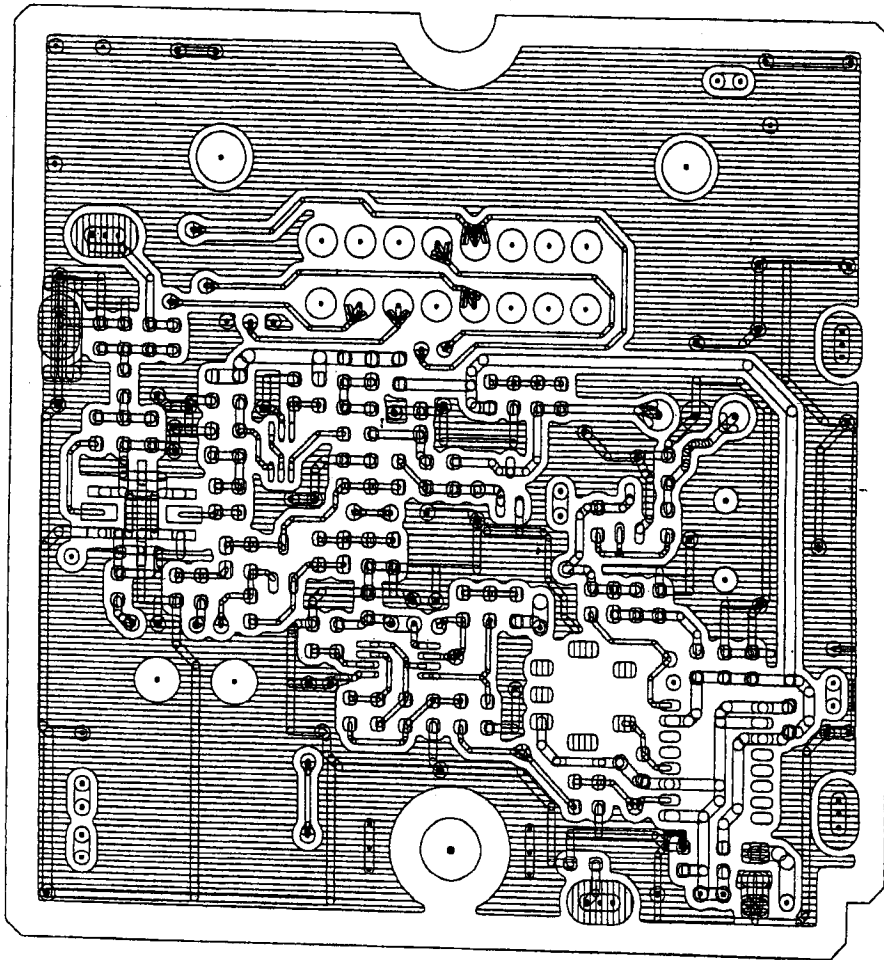


Figure 6.5 pattern layout (front)

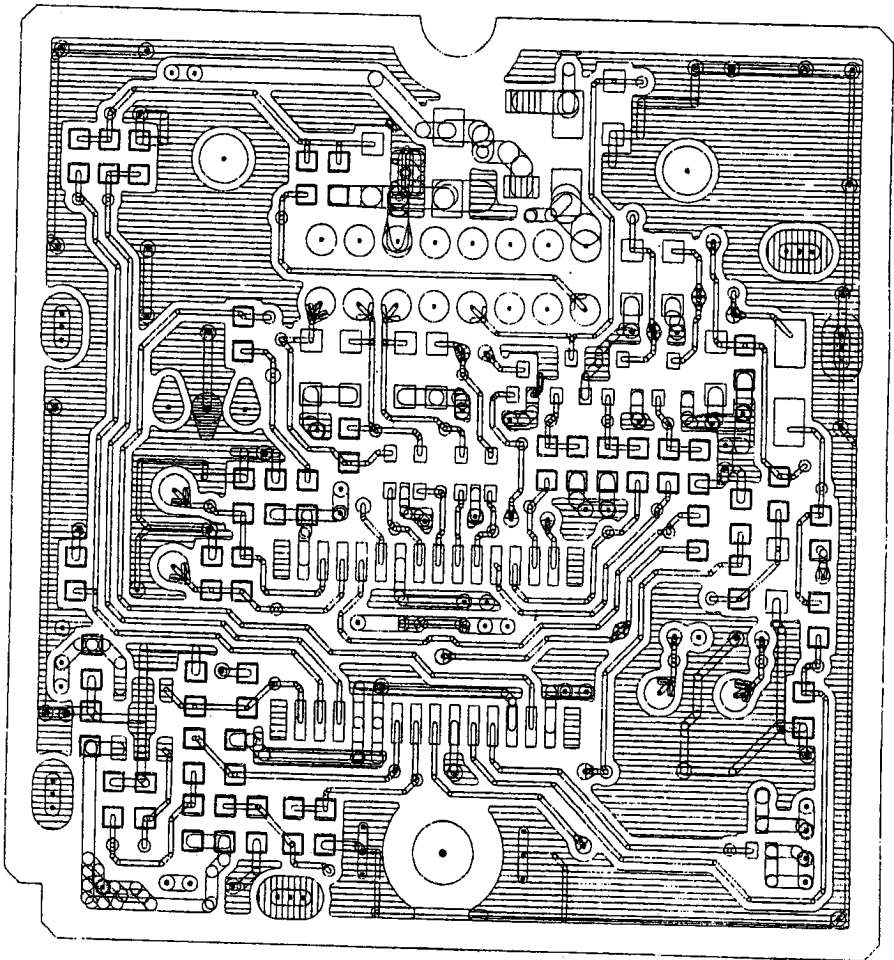


Figure 6.6 pattern layout (back)

No	PARTS NAME	MANUFACTURER	QTY	TYPE	SPECIFICATION	REMARK
1	DETECTIONIC IC	TOSHIBA	1	TA7765AF(EL)	SOP16	IC1
2	OP AMP	TOSHIBA	1	TA75W01FU-TE12L	SM8	IC2
3	CARAMIC FILETER	MURATA industry	1	SFE10.7MS3A1017H 15-A	3PIN	CF1
4	CRYSTAL OSCILLATOR	DAISHINKU	1	AT-49 AF649103C	64.91MHz	X1
5	DUBLE TRANSISTOR	MOTOROLA	1	MRF2947AT2	6PIN MRF947A(x2)	WT1
6	TRANSISTOR	MOTOROLA	3	MRF947AT1	UMT	TR1, 2, 3
7	VARIABLE INDUCTOR	TOKO	1	614BG-1076GW=P3	2.7 μ H C(82pF)	L7
8	SAW FILETER	MATSUSHITA	1		SAFC313.85	SAW1
9	CHIP RESISTOR		3	RK16CAY100KJ-T1	100k Ω 1/16W	R1, 7, 9
10	CHIP RESISTOR		2	RK16CAY330J-T1	330 Ω 1/16W	R2, 8
11	CHIP RESISTOR		1	RK16CAY100J-T1	100 Ω 1/16W	R3
12	CHIP RESISTOR		1	RK16CAY470J-T1	470 Ω 1/16W	R4
13	CHIP RESISTOR		2	RK16CAY1KJ-T1	1k Ω 1/16W	R5, 10
14	CHIP RESISTOR		1	RK16CAY200J-T1	200 Ω 1/16W	R12
15	CHIP RESISTOR		3	RK16CAY00-T1	0 Ω 1/16W	R13, Z2, Z8
16	CHIP RESISTOR		1	RK16CAY680-T1	680 Ω 1/16W	R14
17	CHIP RESISTOR		2	RK16CAY8.2KJ-T1	8.2k Ω 1/16W	R15, 16
18	CHIP RESISTOR		1	RK16CAY6.8KJ-T1	6.8k Ω 1/16W	R17
19	CHIP RESISTOR		2	RK16CAY220KJ-T1	220k Ω 1/16W	R11, 18

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	98-09-17					RF MODULE PARTS LIST G8D-320A-B SHEET No (1 / 3)		
SYM	DATE	E/C CONTENTS		E/C No	SIGN	DWG NO		

No	PARTS NAME	MANUFACTURER	QTY	TYPE	SPECIFICATION	REMARK
20	CHIP RESISTOR		1	RK16CAY27KJ-T1	27kΩ 1/16W	R19
21	CHIP RESISTOR		1	RK16CAY33KJ-T1	33kΩ 1/16W	R20
22	CHIP RESISTOR		1	RK16CAY68KJ-T1	68kΩ 1/16W	R21
23	CHIP RESISTOR		1	RK16CAY30KJ-T1	30kΩ 1/16W	R22
24	CHIP RESISTOR		1	RK16CAY15KJ-T1	15kΩ 1/16W	R23
25	CHIP RESISTOR		1	RK16CAY160KJ-T1	160kΩ 1/16W	R24
26	CHIP RESISTOR		1	RK16CAY2KJ-T1	2kΩ 1/16W	R25
27	CERAMIC CAPACITOR		1	CCM-L16CK1H030D-T2	3pF 50V	C1
28	CERAMIC CAPACITOR		10	CKM-L16R1H102K-T2	1000pF 50V	C3, 5, 8, 10, 12 13, 21, 22, 26, 29
29	CERAMIC CAPACITOR		1	CCM-L16CH1H120J-T2	12pF 50V	C4
30	CERAMIC CAPACITOR		1	CCM-L16CH1H180J-T2	18pF 50V	C6
31	CERAMIC CAPACITOR		1	CCM-L16CH1H270J-T2	27pF 50V	C7
32	CERAMIC CAPACITOR		1	CCM-L16CH1H0R5C-T2	0.5pF 50V	C9
33	CERAMIC CAPACITOR		3	CCM-L16CH1H471J-T2	470pF 50V	C11, 19, 20
34	CERAMIC CAPACITOR		1	CCM-L16CH1H080J-T2	8pF 50V	C14
35	CERAMIC CAPACITOR		1	CCM-L16CH1H331J-T2	330pF 50V	C16
36	CERAMIC CAPACITOR		1	CCM-L16CH1H220J-T2	22pF 50V	C17
37	CERAMIC CAPACITOR		1	CCM-L16CH1H470J-T2	47pF 50V	C18
38	CERAMIC CAPACITOR	MURATA industry	5	GRM39R104K16PT	0.1μF 50V	C23, 24, 25, 27, 30

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No	PARTS NAME	MANUFACTURER	QTY	TYPE	SPECIFICATION	REMARK
39	CERAMIC CAPACITOR		1	CKM-L16R1H103K-T2	0.01 μ F 50V	C28
40	CHIP INDUCTOR	MURATA industry	1	LQG11A39NJ00T1	39nH	L1
41	CHIP INDUCTOR	MURATA industry	1	LQG11A15NJ00T1	15nH	L2
42	CHIP INDUCTOR	MURATA industry	1	LQG11A27NJ00T1	27nH	L3
43	CHIP INDUCTOR	TDK	3	MLF1608DR47KT	470nH	L4, 6 R6
44	CHIP INDUCTOR	MURATA industry	1	LQG11A18NJ00T1	18nH	L5
45	CHIP INDUCTOR	MURATA industry	1	LQG11A3N9J00T1	3.9nH	Z2
46	CERAMIC CAPACITOR	MURATA industry	1	GRM39CH240J50	24PF 50V	Z3
47	CERAMIC CAPACITOR	MURATA industry	1	GRM39CH090J50	9PF 50V	Z5

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RF MODULE PARTS LIST

G8D-320A-B

SHEET No (3 / 3)

DWG NO

No	PARTS NAME	MANUFACTURER	QTY	TYPE	SPECIFICATION	REMARK
1	CPU	MOTOROLA	1	MC68HC05P18	28PIN SOP	MPU1
2	RESET IC	SEIKO electronics	1	S-875039BUP-ABD-T	SOT-89-5	IC3
3	CRYSTAL OSCILLATOR	DAISHINKU	1		4.00MHz	X2
4	DEGITAL TRANSISTOR	ROHM	1	DTA114YUAT106	100mA	TR4
5	DEGITAL TRANSISTOR	ROHM	2	FMG8A		TR5, TR6
6	DEGITAL TRANSISTOR	mitsubishi electronics	3	2SC3441T T12-1F		TR7, TR8, TR9
7	DEGITAL TRANSISTOR	ROHM	1	DTC143ZUA		TR10
8	DIODE	FUJI electornics	2	SC016-6-TE12RA	1A 600V	D1, D2
9	ZENER DIODE	NEC	1	RD20FMB-T1	1W 20V	ZD1
10	ZENER DIODE	MOTOROLA	2	MMSZ5231B-T1	500mW 5.1V	ZD2, ZD10
11	ZENER DIODE	MOTOROLA	7	MMSZ5252B-T1	500mW 24V	ZD3, 4, 5, 6, 7, 8, 9.
12	CHIP RESISTOR		7	RK20CAY2.2KJ-T1	2.2K Ω 1/10W	R26, 27, 29, 43, 45, 47, 52
13	CARRBON RESISTOR		1	RD1/3LL1A100J-T2	100 Ω 1/4W	R28
14	CHIP RESISTOR		10	RK20CAY47KJ-T1	47k Ω 1/10W	R30, 32, 33, 37 40, 44, 46, 48, 49, 53
15	CHIP RESISTOR		2	RK20CAY100KJ-T1	100k Ω 1/10W	R31, R51
16	CHIP RESISTOR		1	RK20CAY1MJ-T1	1M Ω 1/10W	R41
17	CHIP RESISTOR		2	RK20CAY1KJ-T1	1k Ω 1/10W	R42, 50
18	CHIP RESISTOR		3	RK20CAY10KJ-T1	10k Ω 1/10W	R34, 36, 38
19						

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RECEIVER PARTS LIST

G8D-320A-B

SHEET No (1 / 2)

DWG NO

No	PARTS NAME	MANUFACTURER	QTY	TYPE	SPECIFICATION	REMARK
20	CERAMIC CAPACITOR	MURATA industry	4	GRM40-034R104K 50PT	0.1 μF 50V	C31. 33. 35. 36
21	CERAMIC CAPACITOR		1	CKM-L20R1H471K-T2	470pF 50V	C32
22	TANTALUM CAPACITOR	NEC	1	TFMSVB21A336M8R	33 μF 10V	C34
23	CERAMIC CAPACITOR		5	CCM-L20R1H102K-T2	1000pF 50V	C37. 38. 39. 40 43. 44
24	CERAMIC CAPACITOR		2	CCM-L20CH100D-T2	10pF 50V	C41. 42
25	PWB	CMK	1	FCL-FR435M416	t =1. 6	
26	CONNECTOR	SUMITOMO electronics	1	6098-2021	16P	
27	ANTENNA		1	C2680 1/2H	t=0. 5	
28	CASE		1	ABS	BLACK	
29	BASE		1	ABS	BLACK	
30	ERATH PLATE		1	C5210R-EH	t=0. 15	
31	TAPPING SCREW		2	M3×8		
32	LABEL		1		FCC LABEL	

注

6.4 Connector

This is the pin assignment of the connector.

No.	I/O	Assignment	Memorandom
a	INPUT	Ignition switch	Active High
b		Battery	12V
c	INPUT	Door switch	Active Low
d		(not used)	
e	OUTPUT	Horn	Active Low
f		(not used)	
g	OUTPUT	Head lamp	Active Low
h	OUTPUT	Hazard	Active Low
i	OUTPUT	Boot Release	Active Low
j	OUTPUT	Burglar alarm control	Active Low
k	OUTPUT	Unlock	Active Low
l		Ground	GND
m		(not used)	
n		(not used)	
o	OUTPUT	D-Unlock	Active Low
p		(not used)	